

SURVEILLANCE REPORT

Monthly measles and rubella monitoring report

March 2019

Period covered: 1 February 2018 to 31 January 2019

Introduction

This monitoring report is based on measles and rubella data from The European Surveillance System (TESSy) for the period 1 February 2018 to 31 January 2019.

Routine disease data are submitted on a monthly basis by 30 European Union/European Economic Area (EU/EEA) countries for measles and 28 EU/EEA countries for rubella (France and Belgium do not submit data). TESSy data on measles and rubella are also published each month in the ECDC Surveillance Atlas of Infectious Diseases [1].

ECDC also monitors European measles and rubella outbreaks through epidemic intelligence and publishes recent updates in the Communicable Disease Threats Report (CDTR) [2] on the same day as this monitoring report. Additionally, ECDC conducts assessments as significant outbreaks or public health events develop. The last ECDC rapid risk assessment on the risk of measles transmission in the EU/EEA was published in March 2018 [3].

Measles

Measles in January 2019

Twenty-nine countries reported measles data for January 2019, with 881 cases reported by 19 countries and 10 countries reporting no cases. Germany did not report measles data for January 2019 (Figure 1).

Overall, case numbers continued to increase compared with the previous two months. Romania, Italy, Poland and France had the highest case counts with 261, 165, 133 and 124 cases, respectively (Table 1).

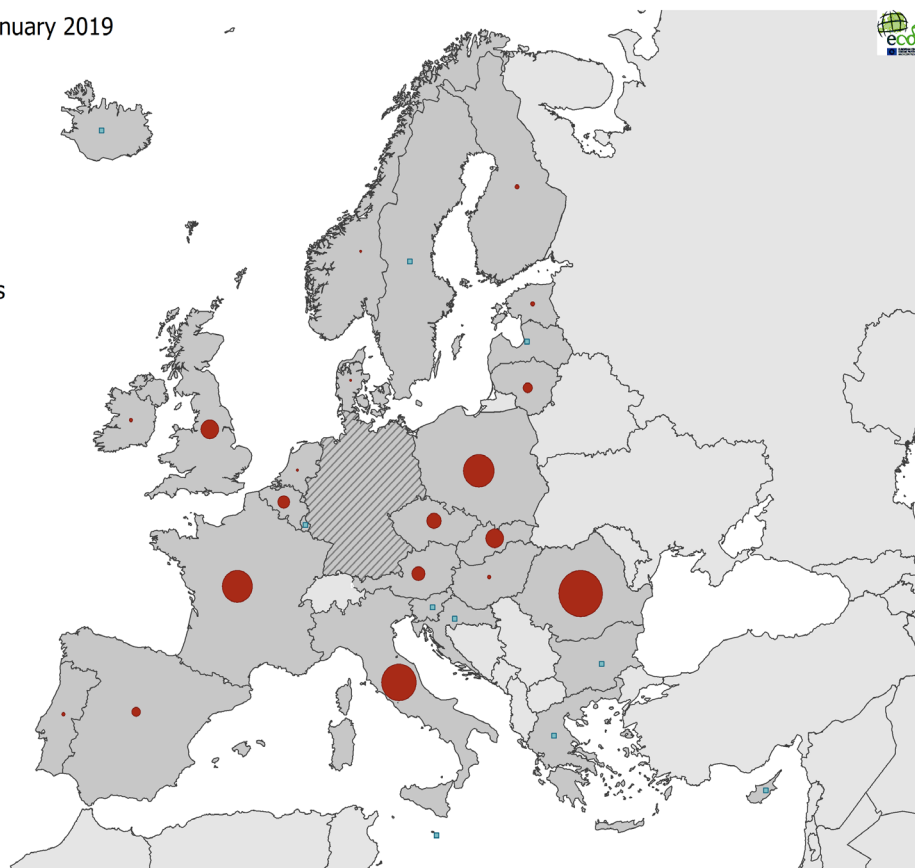
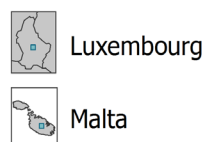
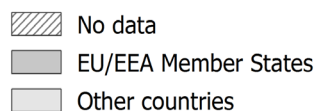
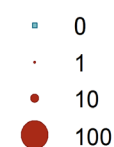
Notable increases were reported in Italy, Poland, France and Austria.

- Italy reported 165 cases in January, compared with 76 in December and 58 in November.
- Poland reported 133 cases in January, compared with 114 in December and 79 in November.
- France reported 124 cases in January, compared with 54 in December and 61 in November.
- Austria reported 25 cases in January, compared with one in December and four in November.

Where available, links to recent updates published by national public health authorities in the EU/EEA can be found in the CDTR [2].

Figure 1. Number of measles cases by country, EU/EEA, January 2019 (n=881)

Number of measles cases, January 2019

Produced 28 Feb 2019 using ECDC map maker: <https://emma.ecdc.europa.eu>

Measles between February 2018 and January 2019

Between 1 February 2018 and 31 January 2019, 30 EU/EEA Member States reported 12 266 cases of measles, 8 580 (70%) of which were laboratory-confirmed. One country reported no cases. The highest number of cases were reported by France (2 800), Italy (2 632), Greece (1 862), Romania (1 247), United Kingdom (941), Slovakia (614) and Germany (516), accounting for 23%, 22%, 15%, 10%, 8%, 5% and 4% of all cases, respectively (Table 1). Notification rates per million population above the EU/EEA average (23.7) were reported by Greece (172.9), Slovakia (113.0), Romania (63.5), Italy (43.4) and France (41.8) (Figure 2).

The number of measles cases reported to TESSy may be an underestimation in certain cases. In particular, this may apply to Romania. The sustained outbreak in the country has caused delays in case-based reporting to TESSy and the most up-to-date data are available from the Romanian National Institute of Public Health [4].

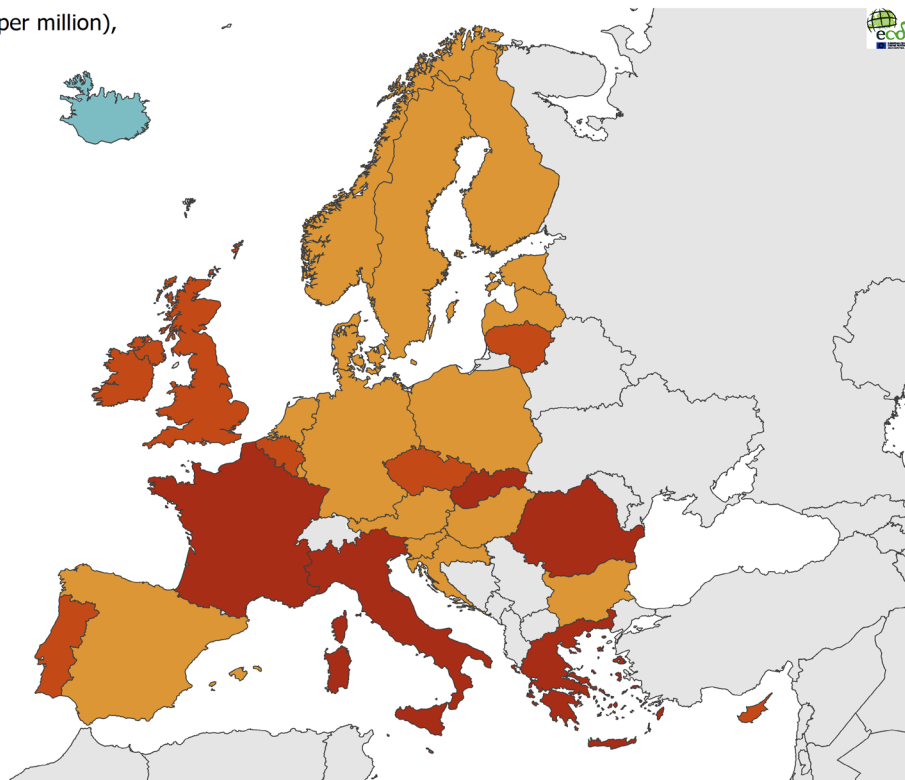
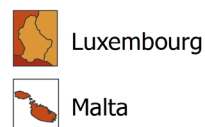
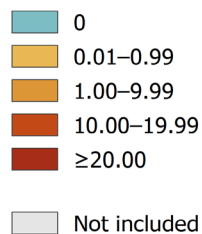
Table 1. Number of measles cases by month and notification rate per million population by country, EU/EEA, 1 February 2018 to 31 January 2019

Country	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2019	Total cases	Cases per million	Total lab-positive cases
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan			
Austria	5	15	17	12	6	1	3	6	0	4	1	25	95	10.8	91
Belgium	6	9	11	24	22	3	11	14	4	8	7	20	139	12.2	105
Bulgaria	1	2	1	1	1	7	0	0	0	0	0	0	13	1.8	13
Croatia	0	0	1	2	16	3	1	0	0	0	0	0	23	5.5	23
Cyprus	6	4	0	0	0	0	0	0	0	0	0	0	10	11.7	10
Czech Republic	23	32	40	33	12	4	7	4	7	16	32	29	239	22.6	237
Denmark	0	3	0	0	0	0	2	2	0	0	1	1	9	1.6	9
Estonia	0	2	7	1	0	0	0	0	0	0	0	3	13	9.9	13
Finland	0	0	0	4	0	0	3	0	0	1	7	3	18	3.3	18
France	515	761	619	251	191	81	29	38	76	61	54	124	2800	41.8	1369
Germany	30	49	98	105	94	54	29	24	13	10	10	.	516	6.2	432
Greece	453	549	352	290	155	38	18	4	2	0	1	0	1862	172.9	1041
Hungary	5	6	0	0	0	0	0	0	0	0	1	2	14	1.4	14
Iceland	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Ireland	13	17	12	0	2	5	18	6	4	3	1	2	83	17.4	64
Italy	301	391	498	461	317	147	79	57	82	58	76	165	2632	43.4	2053
Latvia	7	1	0	2	3	1	1	0	0	1	2	0	18	9.2	18
Lithuania	0	0	0	0	0	1	1	0	0	8	20	12	42	14.8	42
Luxembourg	0	0	1	0	0	0	2	0	0	1	0	0	4	6.8	4
Malta	0	0	0	0	0	5	0	0	0	0	0	0	5	10.9	5
Netherlands	2	2	0	3	10	1	4	0	0	0	2	1	25	1.5	24
Norway	4	2	1	2	0	0	3	0	0	0	0	1	13	2.5	11
Poland	11	3	22	19	12	13	19	9	21	79	114	133	455	12.0	266
Portugal	4	106	13	0	3	1	3	3	2	24	12	2	173	16.8	162
Romania	102	105	111	104	111	100	92	63	54	74	70	261	1247	63.5	952
Slovakia	0	0	3	18	72	257	87	28	16	38	52	43	614	113.0	407
Slovenia	0	0	0	3	3	0	0	0	1	0	0	0	7	3.4	7
Spain	14	52	50	41	25	15	7	4	4	1	6	11	230	4.9	225
Sweden	2	2	2	4	3	3	2	4	1	0	3	0	26	2.6	24
United Kingdom	81	150	202	155	100	82	54	16	21	26	11	43	941	14.3	941
EU/EEA	1585	2263	2061	1535	1158	822	475	282	308	413	483	881	12266	23.7	8580

Source: TESSy, data extracted on 28 February 2019
 .. data not reported.

Figure 2. Measles notification rate per million population by country, EU/EEA, 1 February 2018 to 31 January 2019

Notification rate of measles (per million), February 2018–January 2019

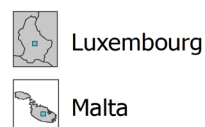
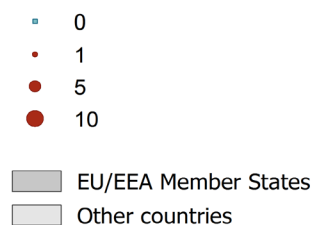


Produced 28 Feb 2019 using ECDC map maker: <https://emma.ecdc.europa.eu>

Thirty-three deaths attributable to measles were reported to TESSy during the 12-month period in Romania (22), Italy (7), France (2) and Greece (2) (Figure 3).

Figure 3. Number of measles deaths by country, EU/EEA, 1 February 2018 to 31 January 2019 (n=33)

Number of measles deaths, February 2018–January 2019



Produced 28 Feb 2019 using ECDC map maker: <https://emma.ecdc.europa.eu>

Importation status was reported by 30 countries and known for 10 931 cases (89%), 709 (6%) of which were imported.¹

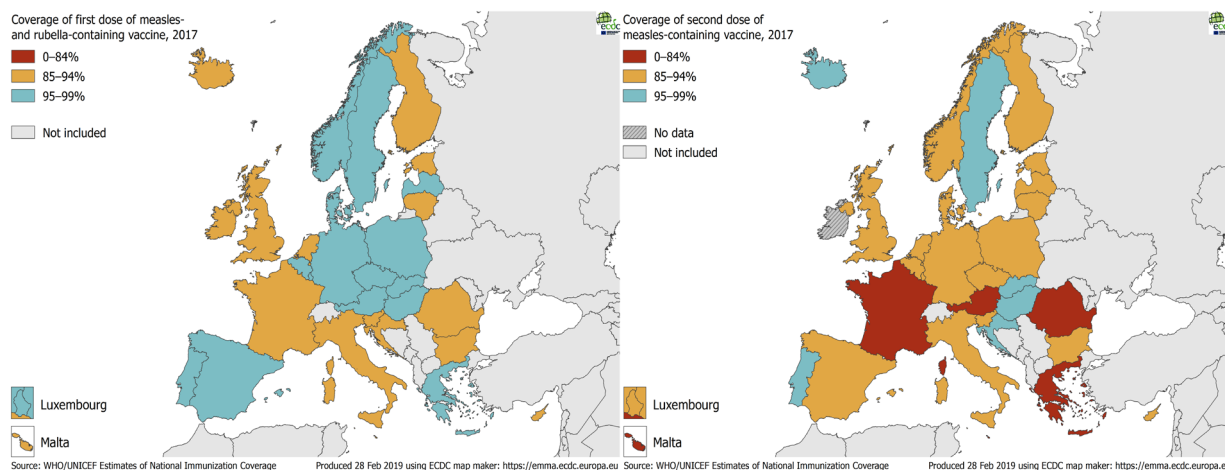
Of 12 131 cases with known age, 3 564 (29%) were children under five years and 6 414 (53%) were aged 15 years or older. The highest notification rates were in children under one year (264.5 cases per million) and aged 1–4 years (104.8 cases per million).

A total of 1 395 cases (11%) had unknown vaccination status. The proportion of cases with unknown vaccination status was highest in adults aged 30 years and above (692 of 3 170 cases; 22%). Of 10 736 cases (88% of all cases) with known age and vaccination status, 8 427 (78%) were unvaccinated, 1 252 (12%) were vaccinated with one dose of measles-containing vaccine, 839 (8%) were vaccinated with two or more doses and 218 (2%) were vaccinated with an unknown number of doses.

The proportion of unvaccinated cases was highest among children under one year (1 272 of 1 362 cases; 93%), too young to have received the first dose of measles-containing vaccine. Infants under one year are particularly vulnerable to measles complications and are best protected by herd immunity. Among 2 202 cases aged 1–4 years, 1 682 (76%) were unvaccinated, 345 (16%) were vaccinated with one dose of measles-containing vaccine, 47 (2%) were vaccinated with two or more doses and 24 (1%) were vaccinated with an unknown number of doses.

Measles continues to spread across Europe because vaccination coverage in many countries is suboptimal. The latest WHO-UNICEF estimates of national immunisation coverage (WUENIC) for the first [5] and second [6] doses of measles-containing vaccine show that only four EU/EEA countries (Hungary, Portugal, Slovakia and Sweden) reported at least 95% vaccination coverage for both doses of in 2017 (Figure 4). If the elimination goal is to be reached, vaccination coverage for children and adults needs to increase in a number of countries. Sustained vaccination coverage of at least 95% for both the first and second doses of measles-containing vaccine must be achieved at all subnational levels and in all communities to interrupt measles circulation [7].

Figure 4. Vaccination coverage for first (left) dose of measles- and rubella-containing vaccine and second (right) dose of measles-containing vaccine, EU/EEA, 2017



¹ Cases were classified as imported if there was virological and/or epidemiological evidence of exposure outside the region or country 7–18 days prior to rash onset.

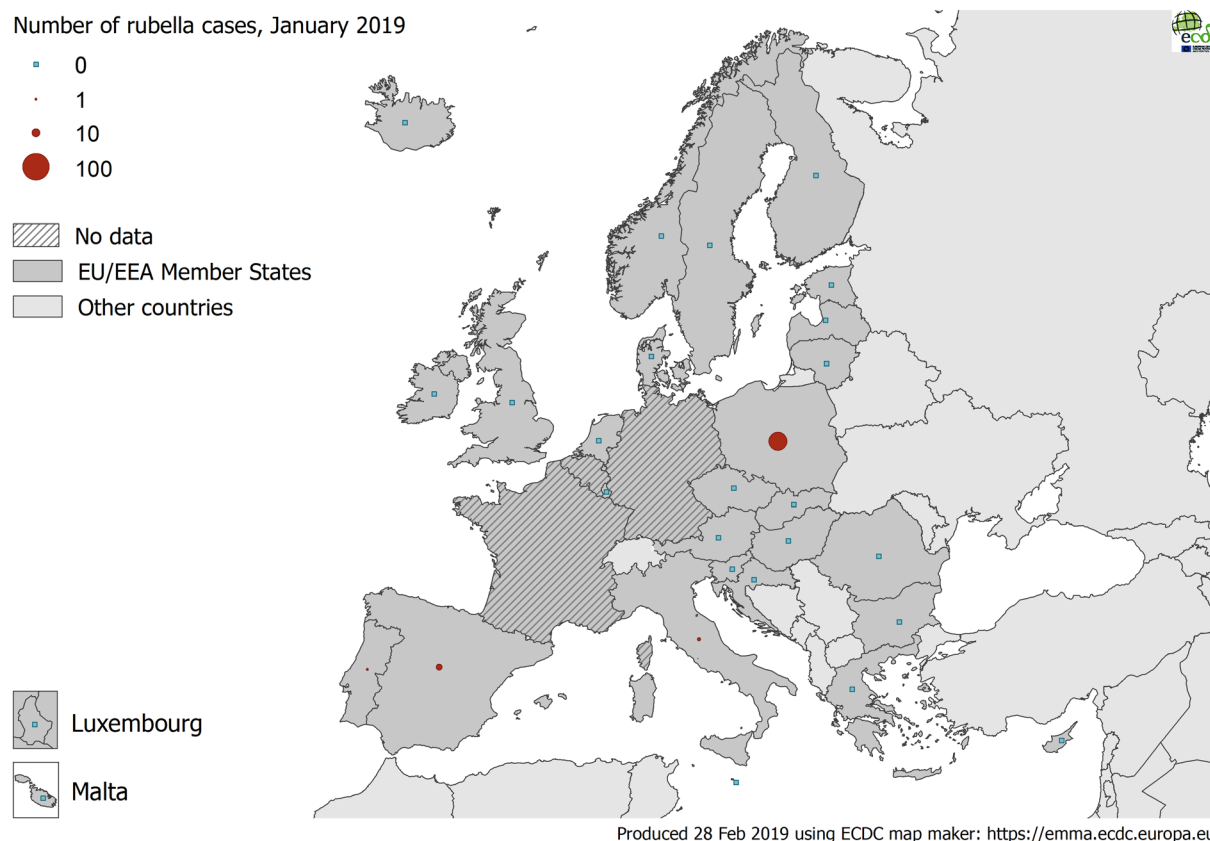
Rubella

Rubella in January 2019

Twenty-seven countries reported rubella data for January 2019, with 56 cases reported by four countries (Spain, Italy, Poland and Portugal) and 23 countries reporting no cases. Germany did not report rubella data for January 2019 (Figure 5).

Overall, case numbers continued to increase compared with the previous two months. Forty-seven of the 56 cases (84%) were reported by Poland (Table 2).

Figure 5. Number of rubella cases by country, EU/EEA, January 2019 (n=56)



Rubella between February 2018 and January 2019

Between 1 February 2018 and 31 January 2019, 13 EU/EEA Member States reported 584 cases of rubella, 52 (9%) of which were laboratory-confirmed. Fifteen countries reported no cases. The highest number of cases were reported by Poland (461), Germany (53), Italy (22) and Spain (19), accounting for 79%, 9%, 4% and 3% of all cases, respectively (Table 2). Notification rates per million population above the EU/EEA average (1.3) were reported by Poland (12.1) and Latvia (1.5) (Figure 6).

Data from Poland were reported in an aggregated format and should be interpreted with caution, as only two of 461 cases (<1%) were laboratory-confirmed. The highest burden among cases reported by Poland was in children, with 151 (33%) cases in children aged 5–9 years, 132 (29%) cases in children aged 1–4 years and 55 (12%) cases in children under one year.

No deaths attributable to rubella were reported to TESSy during the 12-month period.

Table 2. Number of rubella cases by month and notification rate per million population by country, EU/EEA, 1 February 2018 to 31 January 2019

Country	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2019	Total cases	Cases per million	Total lab-positive cases
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan			
Austria	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Bulgaria	0	0	1	0	0	0	0	0	0	0	0	0	1	0.1	0
Croatia	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Cyprus	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Czech Republic	1	0	0	0	0	0	1	0	0	0	0	0	2	0.2	1
Denmark	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Estonia	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Finland	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Germany	4	7	5	3	6	7	5	6	6	1	3	.	53	0.6	14
Greece	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Hungary	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Iceland	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Ireland	1	0	1	0	0	0	1	0	0	1	0	0	4	0.8	0
Italy	2	2	4	2	2	3	1	2	0	2	0	2	22	0.4	6
Latvia	1	1	0	1	0	0	0	0	0	0	0	0	3	1.5	3
Lithuania	0	0	0	1	0	0	0	0	0	0	0	0	1	0.4	1
Luxembourg	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Malta	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Netherlands	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Norway	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Poland	43	42	47	58	50	39	36	22	27	26	24	47	461	12.1	2
Portugal	1	0	0	0	2	0	1	1	0	0	0	1	6	0.6	3
Romania	1	1	0	1	2	0	2	0	1	0	1	0	9	0.5	6
Slovakia	0	0	0	0	0	0	0	0	1	0	0	0	1	0.2	0
Slovenia	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Spain	0	0	1	1	1	0	0	0	0	0	10	6	19	0.4	14
Sweden	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
United Kingdom	1	0	0	0	0	0	0	1	0	0	0	0	2	0.0	2
EU/EEA	55	53	59	67	63	49	47	32	35	30	38	56	584	1.3	52

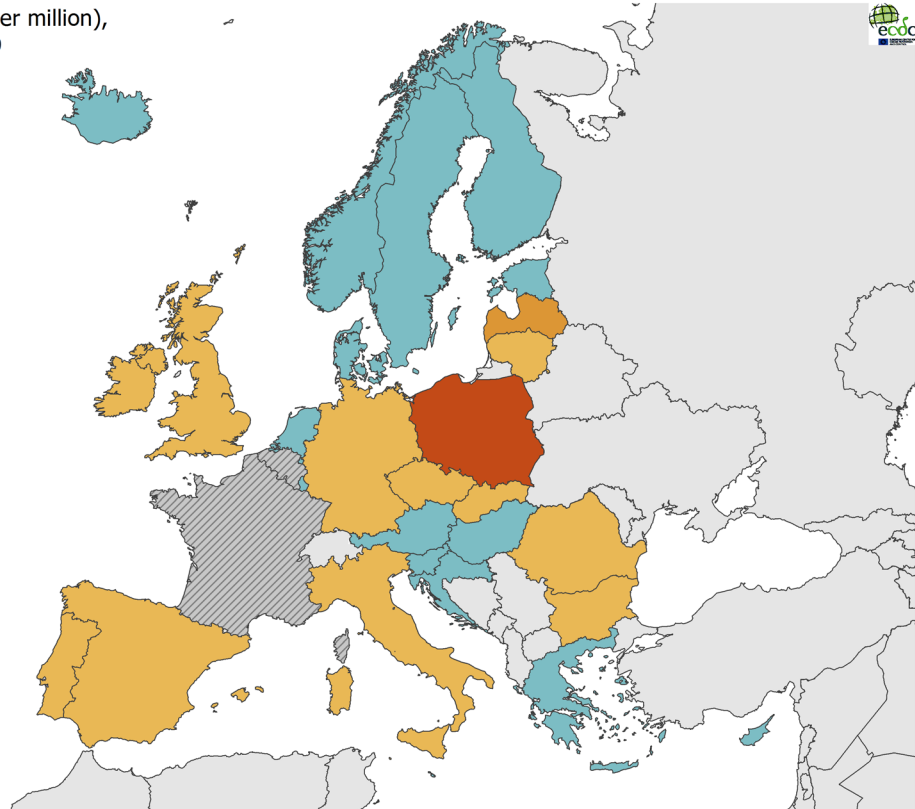
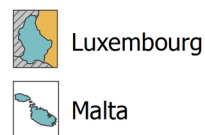
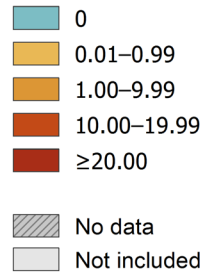
Source: TESSy, data extracted on 28 February 2019

..: data not reported.

The national surveillance system for rubella in Denmark currently only captures rubella infections during pregnancy; therefore the true incidence of rubella in the Danish population is underestimated.

Figure 6. Rubella notification rate per million population by country, EU/EEA, 1 February 2018 to 31 January 2019

Notification rate of rubella (per million),
February 2018–January 2019



Produced 28 Feb 2019 using ECDC map maker: <https://emma.ecdc.europa.eu>

The latest WHO and UNICEF estimates of national immunisation coverage [8] show that 15 EU/EEA countries reported at least 95% vaccination coverage for the first dose of rubella-containing vaccine in 2017 (Figure 4). Sustained vaccination coverage of at least 95% for at least one dose of rubella-containing vaccine must be achieved at all subnational levels and in all communities to interrupt rubella circulation and achieve elimination [7].

References

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